State of California
Regional Water Quality Control Board
North Coast Region

Kirsten James
February 10, 2003

EXECUTIVE OFFICER'S SUMMARY REPORT
9:00 a.m., February 27, 2003
River Lodge Conference Center
1800 Riverwalk Drive
Fortuna, California

ITEM: 14

SUBJECT: Miranda Community Services District, Wastewater Treatment Facility, Humboldt County, Update of Waste Discharge Requirements, WDID No.1B80002OHUM.

DISCUSSION

Miranda Community Services District (Discharger) submitted a Report of Waste Discharge for the Miranda Community Services District Wastewater Treatment Facility (WWTF) dated October 3, 2002. Regional Water Quality Control Board (Regional Water Board) staff review reveals that the wastewater characteristics concerning this discharge have not changed since current Waste Discharge Requirements Order No. 86-93 was adopted in 1986. Based on Regional Water Board staff inspections and Discharger self-monitoring reports, the WWTF has proven to be a well-maintained and operated facility. Staff, therefore, proposes to update Order No. 86-93 with no significant changes.

Wastewater collection facilities consist of small-diameter, gravity sewers to collect the effluent from individual septic tanks throughout the community. A recirculating sand filter, chlorine disinfection system, and a percolation pond provide wastewater treatment and disposal. The system has a design flow of 46,000 gallons per day average dry weather flow and discharges to a percolation pond located approximately 100 yards from the South Fork Eel River. The waste consists of wastewater collected from the surrounding community. There are no industrial wastewater flows to the treatment facility.

The Water Quality Control Plan for the North Coast Region (Basin Plan) contains a water quality objective of 6.5 to 8.5 for Hydrogen Ion (pH) in the South Fork Eel River. Discharger monitoring reports submitted to the Regional Water Board have consistently shown pH values below 6.5, resulting in numerous technical violations of Order No. 86-93. In the judgment of the Regional Water Board staff, the low pH values are attributed to the poor buffering capability of the high purity local water supply. The chlorination process lowers the pH, and the water does not contain enough dissolved minerals to produce a natural buffer to fully neutralize the pH. Since the effluent is discharged into a percolation pond and not into surface water, the soils surrounding the pond should neutralize the effluent acidity. The theoretical pH of pure rainwater in equilibrium with the normal atmospheric concentration of carbon dioxide is 5.6. Therefore, the Regional Water Board finds that 5.6 to 8.5 is an appropriate range for hydrogen ion in the WWTF's effluent.

PRELIMINARY STAFF RECOMMENDATION: Adopt the Waste Discharge Requirements as proposed for the Miranda Community Services District Wastewater Treatment Facility.